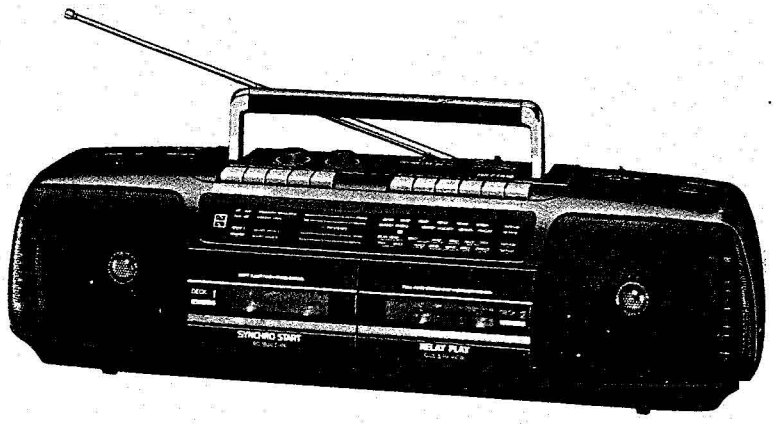
ORDER NO. MD9107075C3

Service Manual

Stereo Radio Cassette Recorder

Radio Cassette

RX-FT510



Color

(K) .....Black Type

Area

Country Code	Area	Color
(G)	Third Region	(K)
(GC)	Saudi Arabia and Kuwait	

MECHANISM SERIES (SG-20W)

■ SPECIFICATIONS

General:

Power Requirement:	AC; 110~127V/200~220V 230~250V,50/60Hz
Power Consumption:	17W Battery; 9V (SIX UM-1 L20/LR20 Batteries)
Power Output:	28W (14W x 2)...PMPO
Speaker:	Woofer; 10 cm Dynamic Speaker (2.7Ω) Tweeter; 1.5cm Ceramic Speaker
Jacks:	
Input;	CD/LINE IN; 398 mV, 47 kΩ
Output;	HEADPHONES; 32Ω, ø3.5
Dimensions (W x H x D):	566 x 156 x 167 (mm)
Weight:	3.1 kg without batteries

Radio Section:

Radio Frequency Range:	FM; 88~108 MHz MW; 530~1605 kHz SW1; 2.3~7.0 MHz SW2; 7.0~22.0 MHz
Intermediate Frequency:	FM; 10.7 MHz AM; 455 kHz
Sensitivity:	FM; 3.5μV/50 mW output...(G) FM; 3.2μV/50 mW output...(GC) (–3dB Limit Sens.) MW; 110μV/m/50 mW output...(G) MW; 100μV/m/50 mW output...(GC) SW1; 100μV/m/50 mW output SW2; 5.0μV/50 mW output

Tape Deck Section:	TAPE 1
Frequency Response:	70~12,000 Hz
Tape Speed:	4.8 cm/s(1 7/8 ips)
Track System:	4-track 2-channel stereo and playback

Tape Deck Section:	TAPE 2
Frequency Response:	70~12,000 Hz
Recording System:	AC bias, Magnet erase.
Tape Speed:	4.8 cm/s(1 7/8 ips)
Track System:	4-track 2-channel stereo recording and playback.

Notes:

1. Weight and dimensions shown are approximate.
2. Design and specifications are subject to changes without notice.

Panasonic

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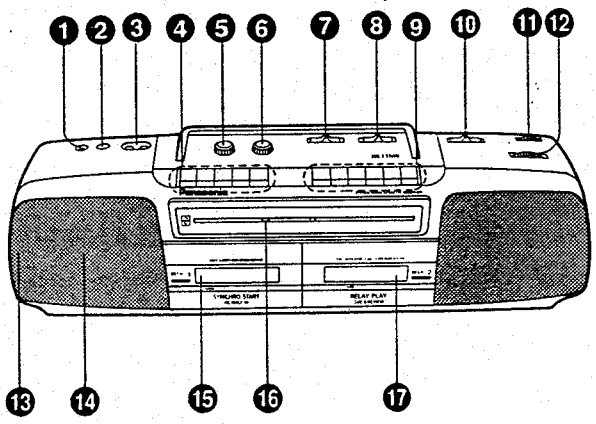
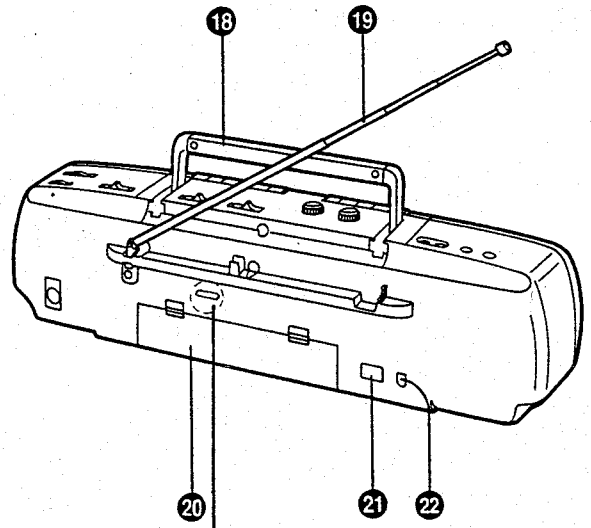
■ LOCATION OF CONTROLS



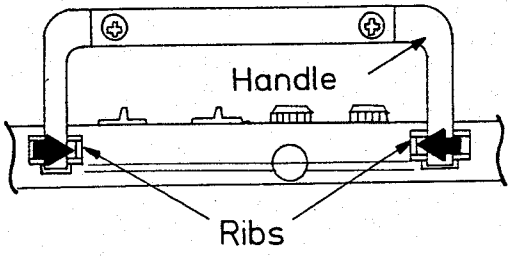


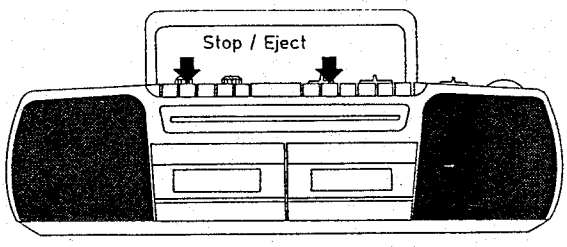
When the tape is caught in the pinch roller, release the tape by turning the pulley on the motor with the screwdriver in the direction of the arrow.

1. Headphone Jack (PHONES) (∅ 3.5, 32Ω)
2. Built-in Microphone (MIC)
3. CD/LINE input Jacks (CD/LINE IN) (398mV, 47Ω)
4. Deck 1 (For Playback)
   - Pause Button (⏸ PAUSE)
   - Stop/Eject Button (⏏ STOP/EJECT)
   - Fast Forward/Cue Button (◀◀ FF/CUE)
   - Rewind/Review Button (▶▶ REW/REV)
   - Playback Button (◀ PLAY)
5. Volume Control (VOLUME)
6. Tone Control (TONE)
7. Function Selector (SELECTOR)(TAPE/OFF, RADIO, CD/LINE)
8. Editing/FM Mode Selector/Beat Proof Switch (EDITING/FM MODE/B.P)
9. Deck 2 (For Recording and Playback)
   - Pause Button (⏸ PAUSE)
   - Stop/Eject Button (⏏ STOP/EJECT)
   - Fast Forward/Cue Button (◀◀ FF/CUE)
   - Rewind/Review Button (▶▶ REW/REV)
   - Playback Button (◀ PLAY)
   - Record Button (● RECORD)
10. Band Selector (BAND) (FM,, MW, SW1,SW2)
11. Fine Tuning Control (FINE TUNING)
12. Tuning Control (TUNING)
13. Speakers [Tweeter] (1.5 cm)
14. Speakers [Woofer] (10 cm, 2.7Ω)
15. Deck 1 Cassette Compartment
16. FM Stereo Indicator (FM STEREO)
17. Deck 2 Cassette Compartment
18. Handle
19. Telescopic Antenna
20. Battery Compartment
21. AC Socket (AC IN~)
22. Voltage Selector (VOLTAGE SELECTOR)

■ DISASSEMBLY INSTRUCTIONS

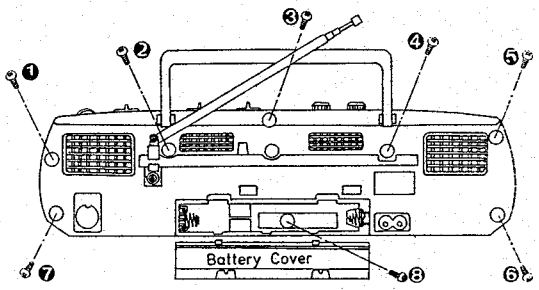
Ref. No. 1	Removal of the Handle
Procedure 1	1. Release 2 ribs. 2. Slide out the handle.

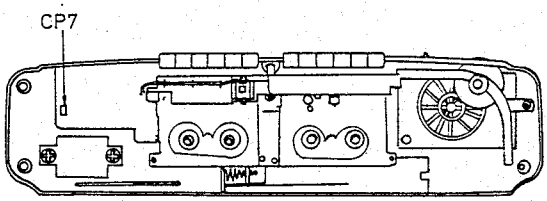




3. Press the STOP/EJECT button in the direction of arrows to open cassette lids.

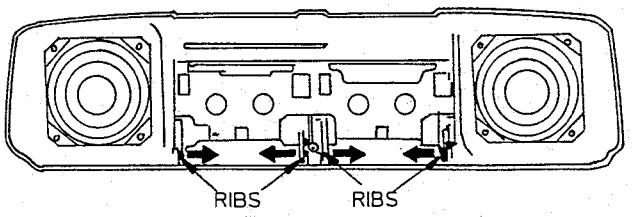
Ref. No. 2	Removal of the Front Cabinet
Procedure 2	1. Remove the battery cover. 2. Remove 8 screws (❶ ~❽).



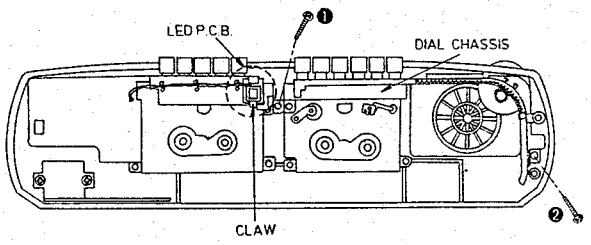


4. Remove the front cabinet.
5. Remove the connector CP7.

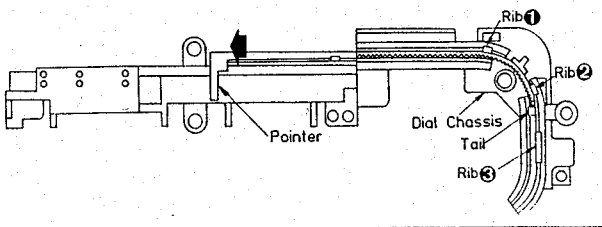
Ref. No. 3	Removal of the Cassette Compartment
Procedure 2 → 3	• Push the 4 ribs in the direction of arrows.



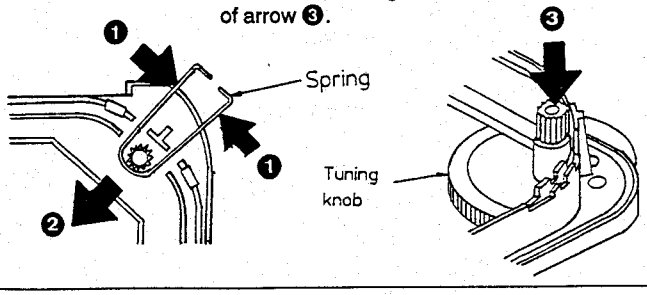
Ref. No. 4	Removal of the Dial Chassis
Procedure 2 → 4	• Release the claw and remove the stereo LED P.C.B. •Remove 2 screws (❶~❷)



Ref. No. 5	Removal of the Pointer
Procedure 2 → 4 → 5	1. Push the pointer to the left until the tail is in between the rib ❷ and rib ❸. 2. Lift up the tail of pointer and push to the right. 3. Ensure the teeth is out of all the ribs. 4. Push the pointer all the way to the left.



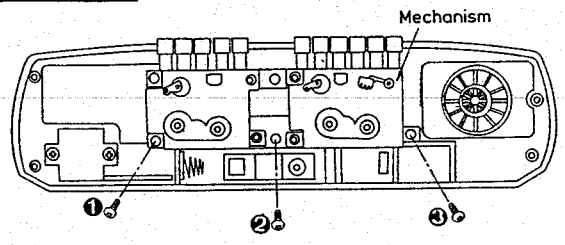
Ref. No. 6	Removal of the Tuning Knob
Procedure 2 → 4 → 5 → 6	1. Remove the spring in the direction of arrow ❶ then ❷. 2. Remove the tuning knob in the direction of arrow ❸.

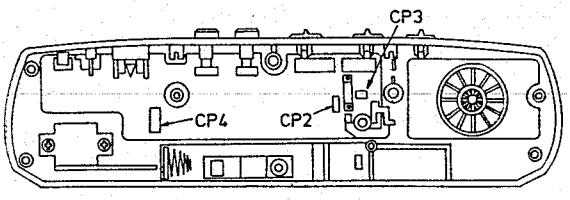


Ref. No. 7 — Removal of the Mechanism

Procedure 2 → 4 → 7

1. Remove 3 screws (❶ ~❸).



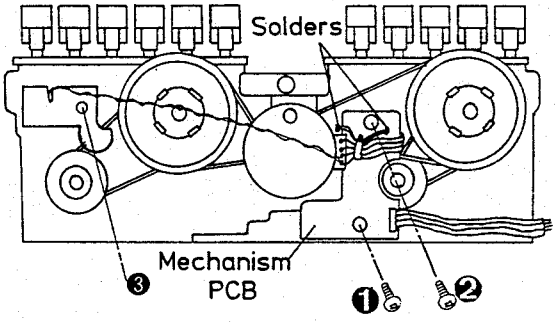


2. Remove 3 connectors (CP2 ~ CP4).

Ref. No. 8 — Removal of the Mechanism P.C.B.

Procedure 2 → 4 → 7 → 8

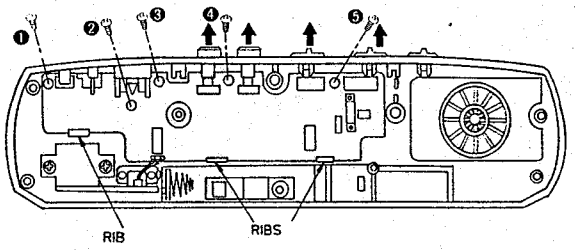
1. Remove 2 screws (❶, ❷).
2. Remove the solders.



Ref. No. 9 — Removal of the Main P.C.B.

Procedure 2 → 4 → 7 → 9

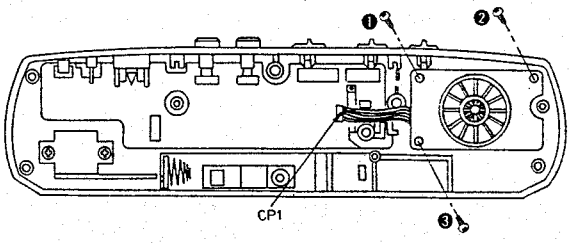
1. Remove 5 screws (❶~❺).
2. Pull out the 2 knobs.
3. Remove 2 switches.
4. Release the ribs and remove the main P.C.B.



Ref. No. 10 — Removal of the Tuner P.C.B.

Procedure 2 → 4 → 7 → 10

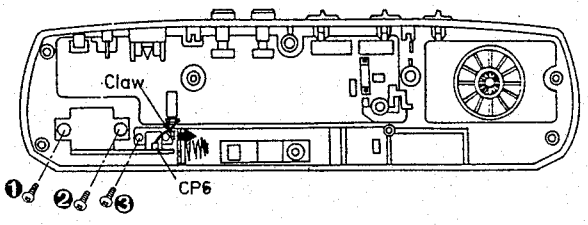
1. Remove 3 screws (❶, ❸).
2. Remove the connector CP1.



Ref. No. 11 — Removal of the Power P.C.B.

Procedure 2 → 4 → 7 → 11

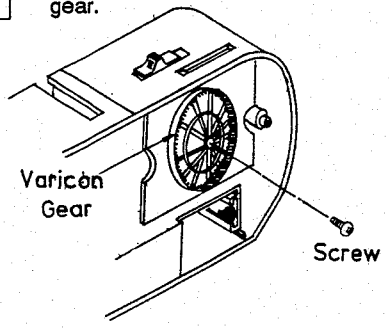
1. Remove 3 screws (❶~❸).
2. Remove the connector CP6.
3. Release the claw in the direction of arrow.



Ref. No. 12 — Removal of the Varicon Gear

Procedure 2 → 4 → 12

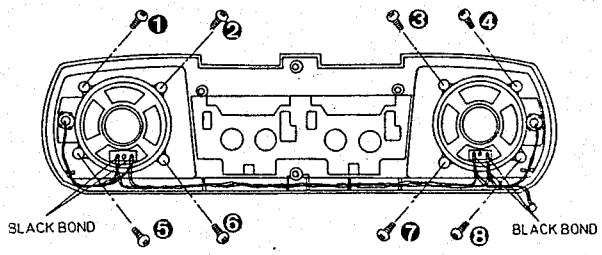
- Remove the screw and pull out the varicon gear.



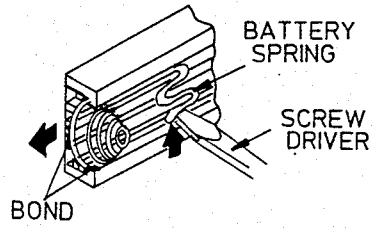
Ref. No. 13 — Removal of the Speaker

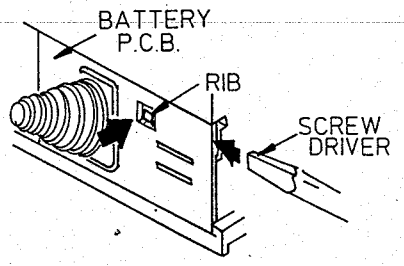
Procedure 2 → 13

- Remove 8 screws (❶~❽).
- Remove the black bond.

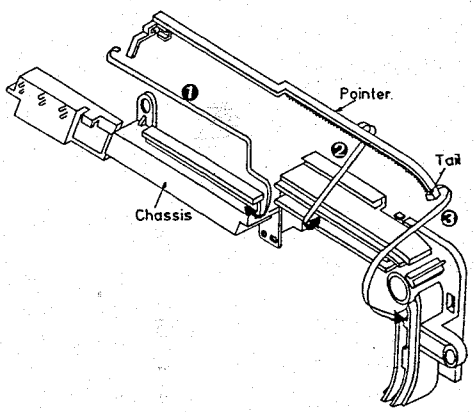


Ref. No. 14	Removal of the Battery Spring	Ref. No. 15	Removal of the Battery P.C.B.
Procedure 2 → 14	1. Lift up the spring in the direction of arrow ❶, using screw-driver. 2. Pull out the spring in the direction of arrow ❷.	Procedure 2 → 15	1. Press the rib in the direction of arrow ❶. 2. Push out the Battery P.C.B. in the direction of arrow ❷, using screw-driver.

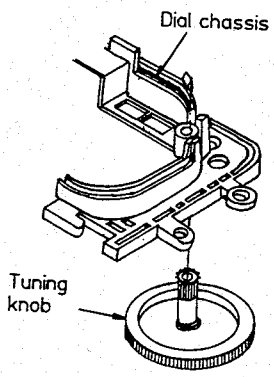




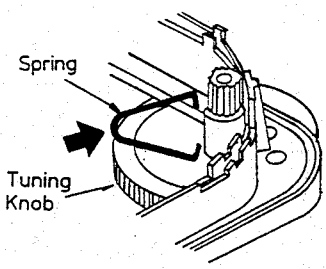
■ DIAL CHASSIS ASSEMBLY



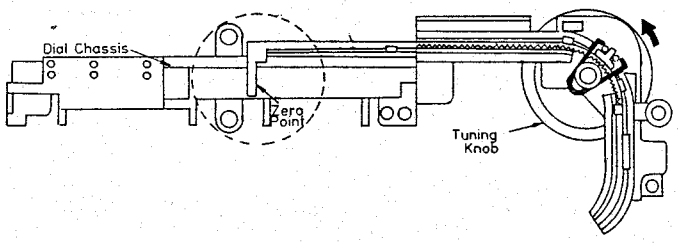
1. Install the pointer in the direction of arrow ❶, followed by ❷, then ❸.



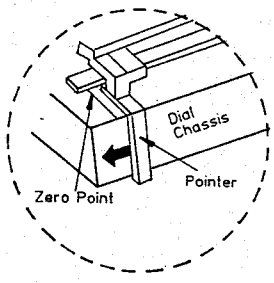
2. Install the tuning knob in the dial chassis.

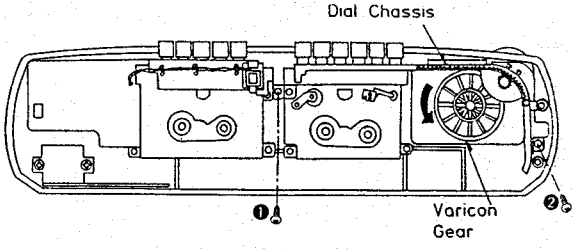


3. Install the spring in the tuning knob.



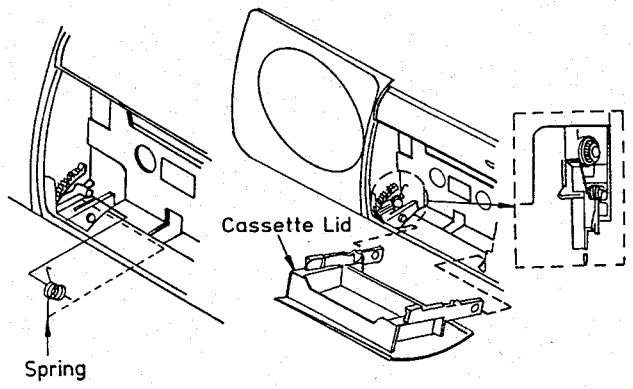
4. Turn the tuning knob on the dial chassis fully anti-clockwise.





5. Turn the varicon gear fully anti-clockwise and install the dial chassis in the cabinet, followed by replacing 2 screws.

■ CASSETTE LID ASSEMBLY



Notes:

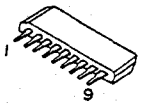
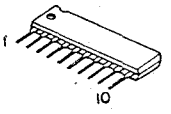
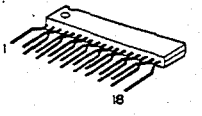
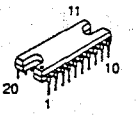
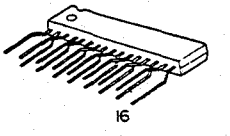
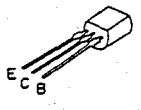
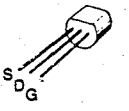
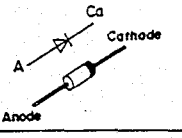
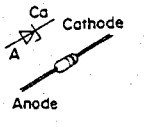
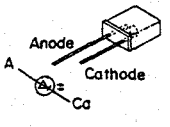
1. S1-1 ~ S1~8: Band Select Switch in "FM " position.
   (F....FM, M...MW, S1...SW1, S2...SW2)
2. S301-1, S301-2: Editing/FM mode/Beat proof switch in "MIC/MONO/I" position.
   (M/I...MIC/MONO/I, N/II...NORMAL/STEREO/II, H/III...HIGH/STEREO/III).
3. S302-1~S302-6: Record/Playback switch in "PLAYBACK" position.
   (P...PLAYBACK, R...RECORD).
4. S303-1~S303-4: Function selector switch in "TAPE/ OFF " position.
   (T...TAPE/ OFF , R...RADIO, L....LINE IN).
5. S304: Tape 1 motor switch.
6. S305: Tape 2 motor switch.
7. S306: AC/DC select switch in "AC" position.
8. S602: Voltage Selector switch in "230~250V" position.
   (1...230~250V,2...200~220V,3...110~127V).
9. VR1: FM VCO Adjustment VR.
10. VR101-1, VR101-2: Tone Control VR
11. VR102-1, VR102-2: Volume Control VR
12. VR401: Tape speed adjustment VR
13. DC voltage measurements are taken with electronics voltmeter.
    The negative terminal of the battery provides negative meter connection point.
    No mark .... PLAYBACK, < > ... FM ( ) ... AM, [ ] ... RECORD.
14. Battery current: Vol. min.....52mA (FM Radio)
    57mA (AM Radio)
    142mA (Tape Playback)
    Vol. max..... 520mA (AM Radio)
    760mA (FM Radio)
    1100mA (Tape Playback)
    1150mA (Record)

    Measurement instruction
    (Radio: FM 60dB, 30% Mod.
    Tape: 315Hz, 0 dB)
15. Important safety notice.
    Components identified by ⚠ mark have special characteristics important safety.
    When replacing any of these components, use only manufacturer's specified parts.
16. The Mark (■) show test point point e.g. TP1 = test point 1.

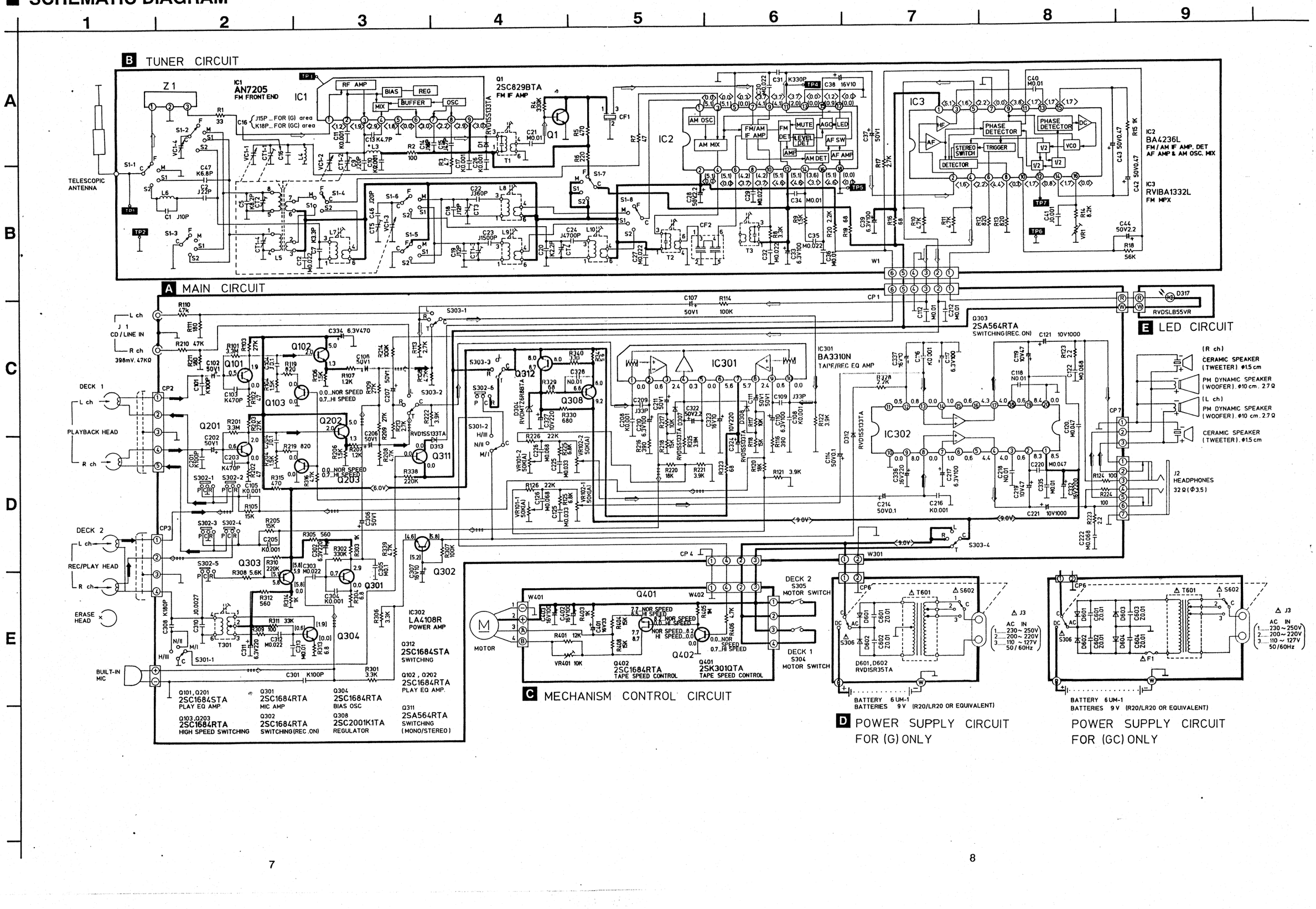
- **This schematic diagram may be modified at any time with the development of new technology.**

...FM SIGNAL LINE
...PLAYBACK SIGNAL LINE
...RECORD SIGNAL LINE
...PLAYBACK/FM SIGNAL LINE
...+ B LINE

■ TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES

AN7205 	BA3310N 	BA4236L 	LA4108R 	RVIBA1332L 
 2SA564RTA 2SC1684STA 2SC1684STA 2SC2001KK1TA		2SK301QTA 	RVD1SR35TA RVD1SS133TA 	RVDMTZ6R8BTA 
RVDSLB55VR 				

■ SCHEMATIC DIAGRAM


B TUNER CIRCUIT
IC1 AN7205 FM FRONT END
Q1 2SC829BTA FM IF AMP
IC2 BA4236L FM / AM IF AMP, DET AF AMP & AM OSC. MIX
IC3 RVIBA1332L FM MPX
TELESCOPIC ANTENNA
A MAIN CIRCUIT
IC301 BA3310N TAPE/REC EQ AMP
IC302 LA4108R POWER AMP
Q303 2SA564RTA SWITCHING(REC. ON)
E LED CIRCUIT
CERAMIC SPEAKER (TWEETER) φ1.5 cm
PM DYNAMIC SPEAKER (WOOFER) φ10 cm. 2.7Ω
J2 HEADPHONES 32Ω(φ3.5)
DECK 1
DECK 2
PLAYBACK HEAD
REC/PLAY HEAD
ERASE HEAD
BUILT-IN MIC
Q101,Q201 2SC1684STA PLAY EQ AMP
Q103,Q203 2SC1684RTA HIGH SPEED SWITCHING
Q301 2SC1684RTA MIC AMP
Q302 2SC1684RTA SWITCHING(REC.ON)
Q304 2SC1684RTA BIAS OSC
Q308 2SC2001K1TA REGULATOR
Q312 2SC1684STA SWITCHING
Q102 , Q202 2SC1684RTA PLAY EQ AMP.
Q311 2SA564RTA SWITCHING (MONO/STEREO)
C MECHANISM CONTROL CIRCUIT
Q401 2SK301QTA TAPE SPEED CONTROL
Q402 2SC1684RTA TAPE SPEED CONTROL
S305 MOTOR SWITCH
S304 MOTOR SWITCH
D POWER SUPPLY CIRCUIT FOR (G) ONLY
D601,D602 RVD1SR35TA
BATTERY 6UM-1
BATTERIES 9V (R20/LR20 OR EQUIVALENT)
POWER SUPPLY CIRCUIT FOR (GC) ONLY

■ CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM

A MAIN P.C.B.

EDITING/B.P | SELECTOR | TONE | VOLUME | J1 CD/LINE IN | MIC | J2 PHONES

(R ch) CERAMIC SPEAKER (TWEETER), ϕ1.5cm
PM DYNAMIC SPEAKER (WOOFER), ϕ10cm, 2.7Ω
(L ch) PM DYNAMIC SPEAKER (WOOFER), ϕ10cm, 2.7Ω
CERAMIC SPEAKER (TWEETER), ϕ1.5cm
BRN BLK WHT

C MECHANISM CONTROL P.C.B.

S305 DECK 2 MOTOR SWITCH
S304 DECK 1 MOTOR SWITCH
MOTOR

(DECK 2) REC/PLAY HEAD
(DECK 1) PLAYBACK HEAD
YEL SLD BLU RED GRY WHT RED YEL SLD RED WHT BLU BLK SLD BLK WHT SLD BLU RED GRY

TELESCOPIC ANTENNA

B TUNER P.C.B.

TP1 TP2 TP3 TP4 TP5 TP6 TP7

E LED P.C.B.

D317 (FM STEREO IND.)

BATTERY 6 UM-1
BATTERIES 9V

D POWER SUPPLY P.C.B. FOR (G) AREA

J3 AC IN 1...230~250V 2...200~220V 3...110~127V 50/60Hz | S602 VOLTAGE SELECTOR | T601 (POWER TRANSFORMER) | S306 | F1

D POWER SUPPLY P.C.B. FOR (GC) AREA

J3 AC IN 1...230~250V 2...200~220V 3...110~127V 50/60Hz | S602 VOLTAGE SELECTOR | T601 (POWER TRANSFORMER) | S306 | F1

CAUTION
RISK OF ELECTRIC SHOCK
AC voltage line. Please
do not touch this portion.

NOTES:

BLK	Black	ORG	Orange
BLU	Blue	PNK	Pink
BRN	Brown	RED	Red
GRY	Gray	SLD	Shield Wire
GRN	Green	VLT	Violet
LBLU	Light Blue	WHT	White
		YEL	Yellow

■ MEASUREMENT AND ADJUSTMENT

■ ALIGNMENT INSTRUCTION

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT	
1. Set volume control to maximum. 2. Set band switch to MW, SW1, SW2, or FM. 3. Set function selector to radio or tape.	4. Set power source voltage to 9V DC. 5. Set FM mode/B.p switch to STEREO/III. 6. Output of signal generator should be no higher than necessary to obtain an output reading.

■ LW, MW and SW ALIGNMENT

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR: CONNECTIONS	SIGNAL GENERATOR or SWEEP GENERATOR: FREQUENCY	RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE)	ADJUSTMENT	REMARKS
	AM-IF ALIGHTMENT						
(1)	MW	Fashion a loop of several turns of wire and rediate a signal into the loop ant. of the receiver.	455 kHz 30% Mod. at 400 Hz	Point of non-interfernce. (on/ about 600 kHz)	Headphones Jack (32Ω) {Fabricate the plug as shown in Fig. 2 and then connect the lead wires of the plug to the measuring instrument.}	T2 (AM IFT)	Adjust for maximum output.
	MW-RF ALIGHTMENT						
(2)	MW	"	511 kHz	Tuning capacitor fully closed.	"	L8 (MW OSC Coil)	"
(3)	MW	"	1650 kHz	Tuning capacitor fully open.	"	CT3 (LW OSC Trimmer)	"
(4)	MW	"	550 kHz	Tune to signal	"	(*1) L5-1 (MW ANT Coil)	Adjust for maximum output. Adjust L5-1 by moving the ferrite core.
(5)	MW	"	1500 kHz	"	"	CT2 (MW ANT Trimmer)	Adjust for maximum output. Repeat steps (2)~(5).
	(*1) Cement antenna ferrite core with wax after completing alignment.						
	SW1-RF ALIGHTMENT						
(6)	SW1	"	2.25 MHz	Tuning capacitor fully closed.	"	L9 (SW1 OSC Coil)	Adjust for maximum output.
(7)	SW1	"	7.23 MHz	Tuning capacitor fully open.	"	CT1-3 (SW1 OSC Trimmer)	"
(8)	SW1	"	2.30 MHz	Tune to signal.	"	(*2) L5-2 (SW1 ANT Coil)	Adjust for maximum output. Adjust L5-2 by moving the ferrite core.
(9)	SW1	"	7.0 MHz	"	"	CT1-4 (SW1 ANT Trimmer	Adjust for maximum output. Repeat steps (6)~(9).
	(*1) Cement antenna ferrite cote with wax after completing alignment.						

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR: CONNECTIONS	SIGNAL GENERATOR or SWEEP GENERATOR: FREQUENCY	RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE)	ADJUSTMENT	REMARKS
	SW2-RF ALIGHTMENT						
(10)	SW2	Connect to test point TP1 through ceramic capacitor (10μF) Negative side to test point TP2.	6.89 MHz	Tuning capacitor fully closed.	Headphones Jack (32Ω) {Fabricate the plug as shown in Fig. 2 and then connect the lead wires of the plug to the measuring instrument.}	L10 (SW2 OSC Coil)	Adjust for maximum output.
(11)	SW2		22.79 MHz	Tuning capacitor fully open.	"	CT4 (SW2 OSC Trimmer)	"
(12)	SW2		7.0 MHz	Tune to signal.	"	L7 (SW2 ANT Coil)	Adjust for maximum output. Repeat steps (10)~(12).

■ FM ALIGNMENT

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR: CONNECTIONS	SIGNAL GENERATOR or SWEEP GENERATOR: FREQUENCY	RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE)	ADJUSTMENT	REMARKS
	FM-IF ALIGHTMENT						
(13)	FM	High side thru 0.001μF to test point TP3. Negative side to test point TP2.	10.7 MHz (SWP)	Point of non-interference. (on/ about 90 MHz)	Connect vert. amp. of scope to test point TP4. Negative side to test point TP6.	T1 (FM 1st IFT)	Wave form is shown in Fig.3
(14)	FM	"	"	"	"	T3 (FM 2nd IFT)	Wave form is shown in Fig.4
	FM-RF ALIGHTMENT						
(15)	FM	Connect to test point TP1 through FM dummy antenna. Negative side to test point TP2.	86.2 MHz	Variable capacitor fully closed.	Headphones Jack (32Ω) {Fabricate the plug as shown in Fig. 2 and then connect the lead wires of the plug to the measuring instrument.}	L4 (FM OSC Coil)	(*2) Adjust for maximum output.
(16)	FM		109.2 MHz	Variable capacitor fully open.	"	CT1-1 (FM OSC Trimmer)	"
(17)	FM		106 MHz	Tune to signal.	"	CT1-2 (FM ANT Trimmer)	Adjust for maximum output. Repeat steps (15)~(17).
	(*2) Three output responses will be present; proper tuning is the center frequency.						

■ SEPARATION ALIGNMENT

FM SIGNAL GENERATOR SOURCE CONNECTION	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
98 MHZ, 60 dB (CW) Connect to test point TP1 through FM dummy antenna. Negative side to TP2.	TP7...(+) TP6...(–)	VR1	19kHz	Adjust VR1, for 19 kHz ± 50 Hz reading on frequency counter.

■ HEAD AZIMUTH ALIGNMENT

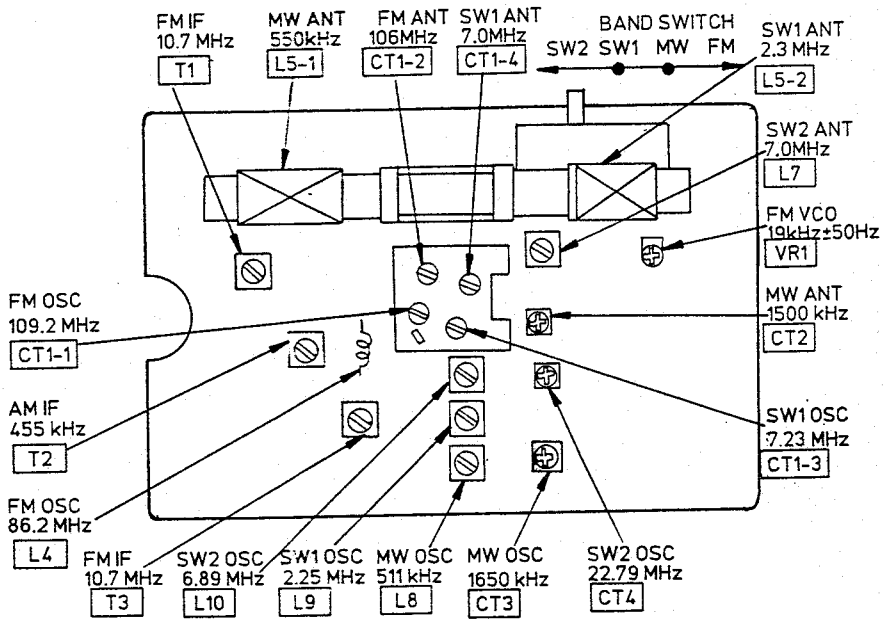
TEST TAPE	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
QZZCFM (8kHz, – 20 dB)	Headphones Jack (32Ω) {Fabricate the plug as shown in Fig. 2 and then connect the lead wires of the plug to the measuring instrument.}	Azimuth screw (Shown in Fig. 5)	Maximum output	• Playback mode

■ TAPE SPEED ADJUSTMENT

TEST TAPE	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	REMARKS
QZZCWAT (3kHz)	Headphones Jack (32Ω) (Fabricate the plug as shown in Fig. 4 and then connect the lead wires of the plug to the measuring instrument.)	VR401 (Shown in Fig. 6)	**Normal Speed Adjustment** 1. Insert a test tape (QZZCWAT) in Tape 2 and play it back.
	2. Adjust VR401 until the measured value becomes 3000 ±30 Hz. 3. Check Tape 1 in the same way to make sure it satisfies the specification. Tape 1...±50 Hz of the speed of Tape 2. If it doesn't repeat steps 1 and 2 above. **Note:** this set uses one drive motor, so be sure to perform the adjustment in Tape 2. **High Speed Measurement** 4. Insert the playback tape into Tape 1 and the editing tape into Tape 2. 5. Set the Editing Mode Selector to the "HIGH" position. 6. Press the Tape 2 Pause Button, then press the Record Button. 7. Press the Tape 1 Playback Button. • Editing is started by means of the Syncho-Start function. 8.Check to be sure that the measured speed is at least **1.7 times** faster than normal speed.		

■ ALIGNMENT POINT

• Please refer to Circuit Board and Wiring Connection Diagram for test point locations.


FM IF 10.7 MHz T1
MW ANT 550kHz L5-1
FM ANT 106MHz CT1-2
SW1 ANT 7.0MHz CT1-4
BAND SWITCH SW2 SW1 MW FM
SW1 ANT 2.3 MHz L5-2
SW2 ANT 7.0MHz L7
FM VCO 19kHz±50Hz VR1
MW ANT 1500 kHz CT2
SW1 OSC 7.23 MHz CT1-3
FM OSC 109.2 MHz CT1-1
AM IF 455 kHz T2
FM OSC 86.2 MHz L4
FM IF 10.7 MHz T3
SW2 OSC 6.89 MHz L10
SW1 OSC 2.25 MHz L9
MW OSC 511 kHz L8
MW OSC 1650 kHz CT3
SW2 OSC 22.79 MHz CT4

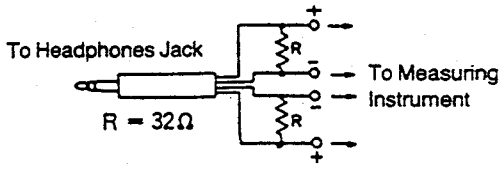


Fig. 2

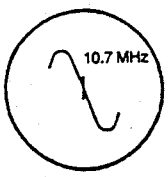


Fig. 3

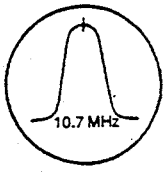


Fig. 4

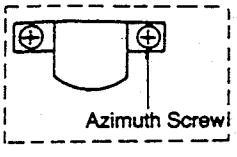


Fig. 5

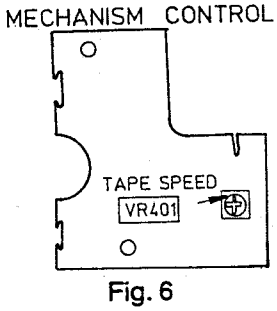


Fig. 6

Ref.No.	Part No.	Part Name & Description	Remarks
		MECHANISM PARTS	
101	RXR0004	TAKE UP REEL ASS'Y	[M]
102	RDG0059	FF RELAY GEAR	[M]
103	RMS0055-1	REEL SHAFT	[M]
104	RXR0005	SUPPLY REEL ASS'Y	[M]
105	RMB0125	BACK TENSION SPRING	[M]
106	RMB0047	HEAD PANEL SPRING	[M]
107	RML0076	EJECT SELECTION LEVER	[M]
108	RMM0029	EJECT SLIDE LEVER	[M]
109	RMB0048-1	IDLER LEVER SPRING	[M]
110	RMC0061	PACK SPRING	[M]
111	RHW16009	CAPSTAN WASHER	[M]
112	RML0081-1	RECORD SAFETY LEVER	[M]
113	RFU189ZA	MECHA CHASSIS ASS'Y	[M]
114	RMB0046-1	LOCK PLATE SPRING	[M]
115	RML0080	ERASE HEAD ARM	[M]
116	RBR2CY009	ERASE HEAD	[M]
117	RML0116	BRAKE	
118	RMB0109-1	BRAKE SPRING	[M]
119	RMA0107-1	HEAD PANEL	[M]
120	RMR0149	HEAD BASE	[M]
121	RMB0059	AZIMUTH SPRING	[M]
122	XTN2+4F	HEAD BASE SCREW	
123	XTN2+8F	R/P HEAD SCREW	
124	RBR4CM001-M	R/P HEAD	[M]
125	RJR0033	EARTH LUG	[M]
126	RHD20003	SCREW	[M]
127	RMA0109	BACK PLATE	[M]
128	REX0185	HEAD WIRE (DECK 2)	[M]
129	XTN2+6J	BACK PLATE SCREW	
130	RMB0043-1	ROD OPERATION SPRING	[M]
131	RMM0027	PAUSE ROD	[M]
132	RMM0026	STOP ROD	[M]
133	RMM0025	FF ROD	[M]

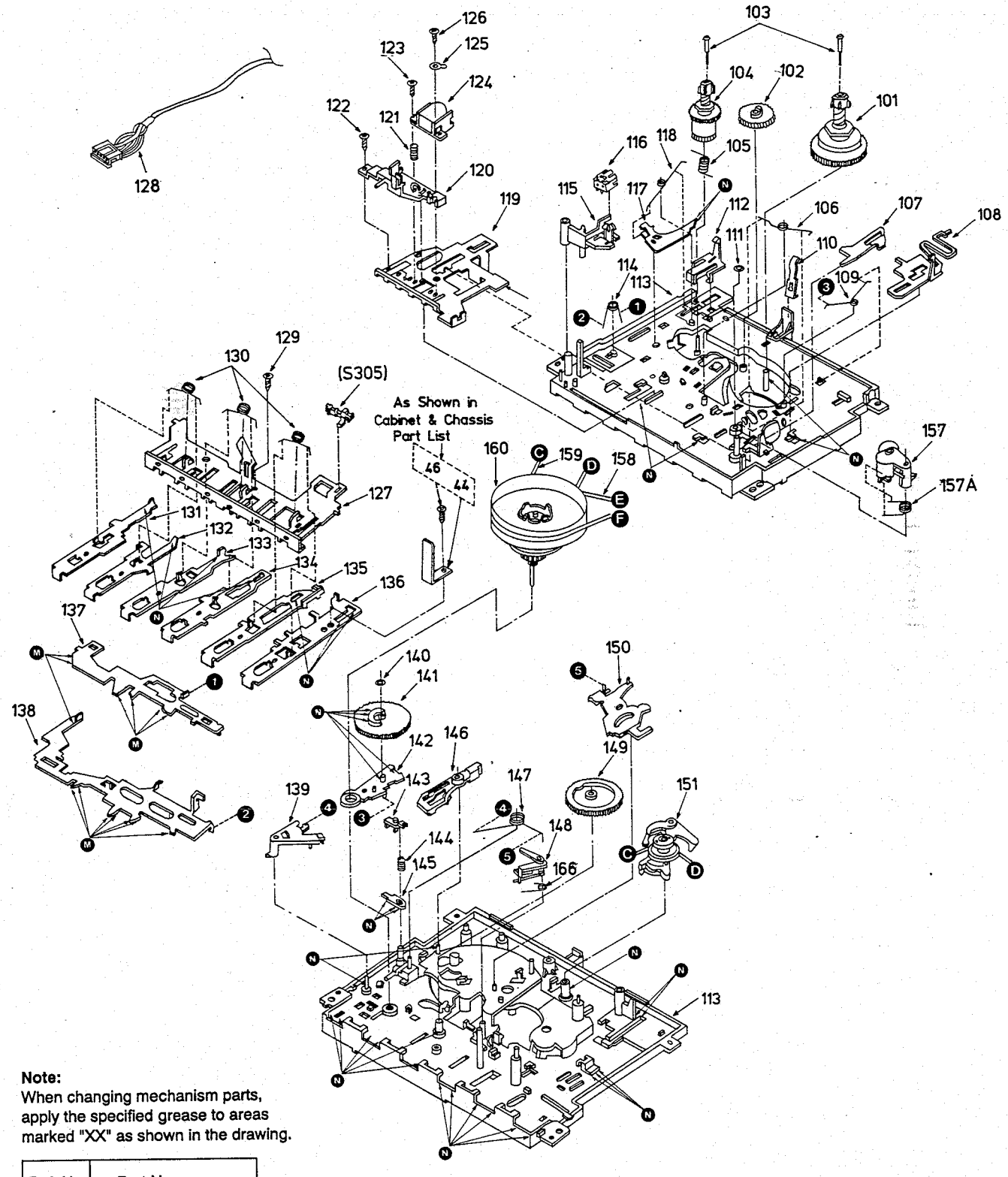
Ref.No.	Part No.	Part Name & Description	Remarks
134	RMM0024	REW. ROD	[M]
135	RMM0023	PLAY ROD	[M]
136	RMM0028	REC ROD	[M]
137	RML0078	FUNCTION PLATE	[M]
138	RML0077-1	LOCK PLATE	[M]
139	RML0072	RELEASE LEVER	[M]
140	RMR0227	WASHER	[M]
141	RDG0057-1	IDLER GEAR	[M]
142	RML0074	IDLER LEVER	[M]
143	RMR0211-1	PAUSE BUSH	[M]
144	RMB0053	PAUSE LEVER SPRING	[M]
145	RML0082	PAUSE LEVER	[M]
146	RML0071-1	SWAY LEVER	[M]
147	RMB0045-1	A.S.SPRING	[M]
148	RML0075	TRIGGER LEVER	[M]
149	RDK0005	CAM GEAR	[M]
150	RML0073-1	PROTECT LEVER	[M]
151	RXP0014	RF CLUTCH ASS'Y	[M]
152	RMG0102	MOTOR RUBBER CUSHION	[M]
153	RHD26002	SCREW	
154	RMA0122	MOTOR BRACKET	
155	XTW26+6L	SCREW	
156	RFKPXFT510PK	MOTOR ASS'Y	[M]
157	RXP0015	PINCH ROLLER ASS'Y	[M]
157A	RMB0049	PINCH ROLLER SPRING	[M]
158	RDV0007	MAIN BELT	[M]
159	RDV0006-1	RF BELT	[M]
160	RXF0012	FLYWHEEL ASS'Y	[M]
161	RDV0009	MAIN BELT B	[M]
162	RMG0131	SUPPORT RUBBER, CUSHION	[M]
163	XTN26+3F	SCREW	[M]
164	RML0085	PAUSE RELEASE LVER	[M]
165	RMA0121	CONNECTOR	
166	RMB0044	TRIGGER LEVEL SPRING	[M]
167	REX0184	HEAD WIRE (DECK 1)	[M]

■ MECHANISM PARTS LOCATION

1 2 3 4 5

A B C D E

• TAPE 1 (For Playback) (Parts Lists on Page 14)

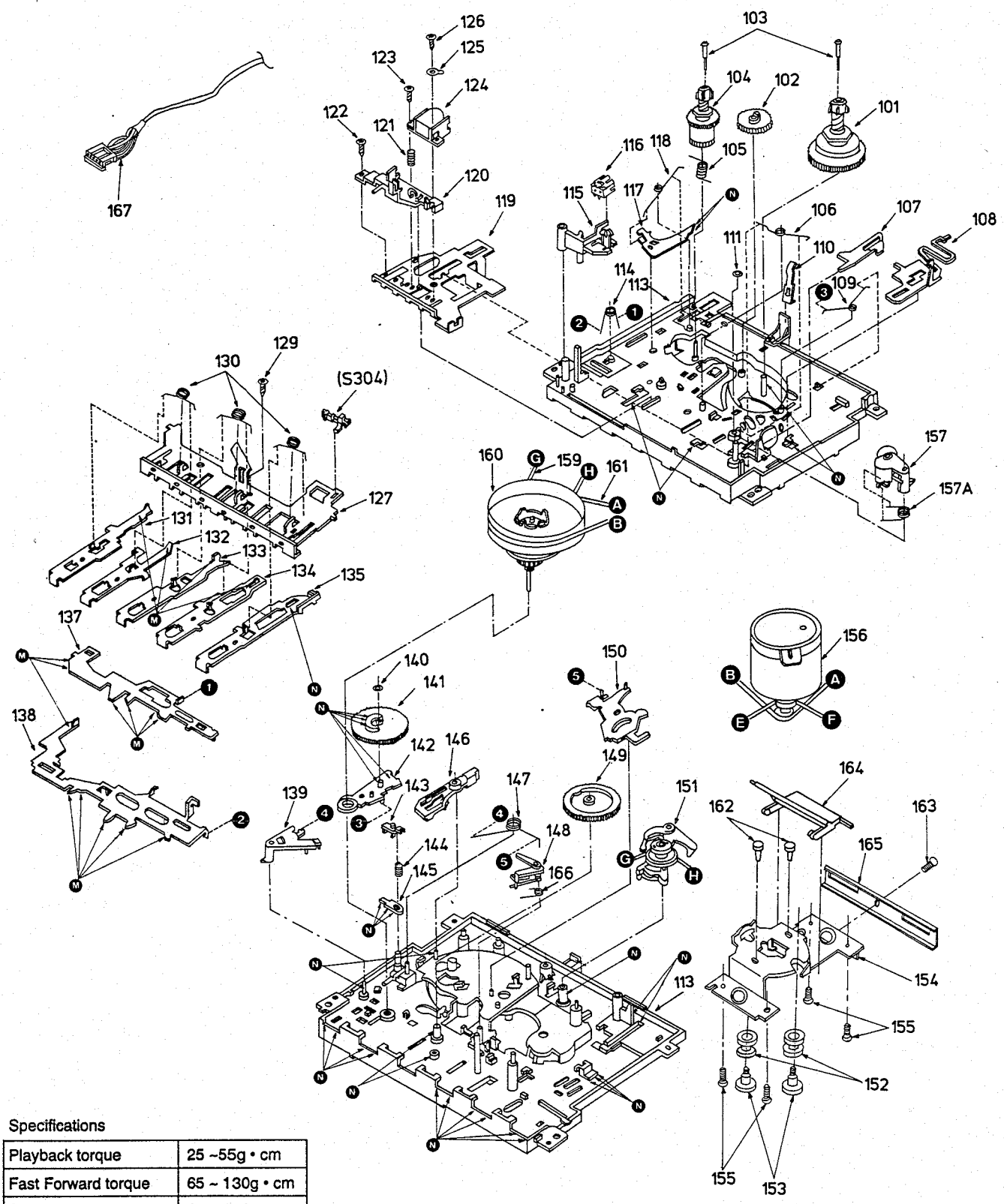


Note:
When changing mechanism parts, apply the specified grease to areas marked "XX" as shown in the drawing.

Ref. No.	Part Name
Ⓜ	ROCOL PASTE
Ⓝ	MOLYKOTE EM-30L

6 7 8 9

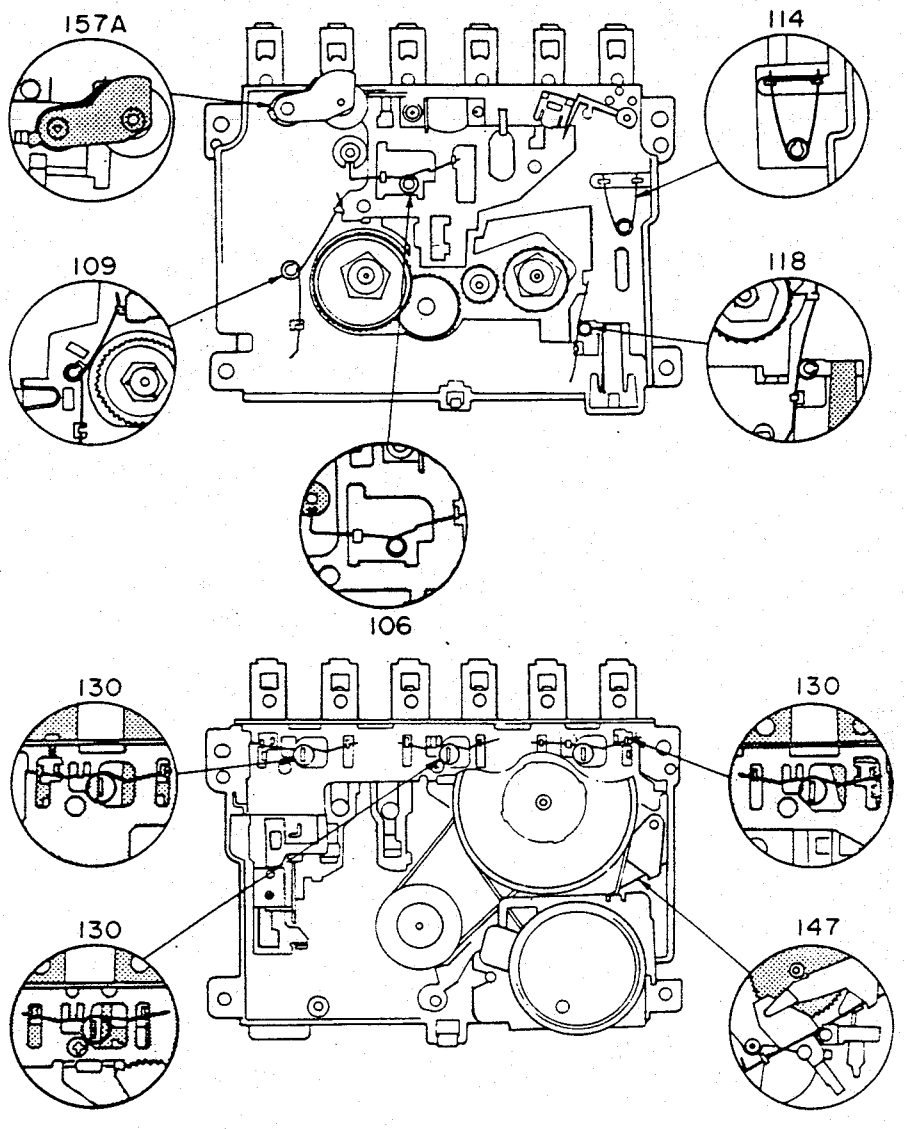
• TAPE 2 (For Recording and Playback) (Parts Lists on Page 14)



Specifications

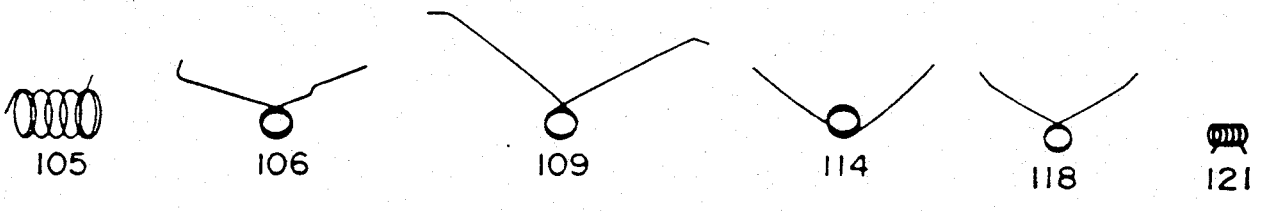
Playback torque	25 ~55g • cm
Fast Forward torque	65 ~ 130g • cm
Rewind torque	65 ~ 130g • cm
Pressure of pinch roller	200 ~ 300g

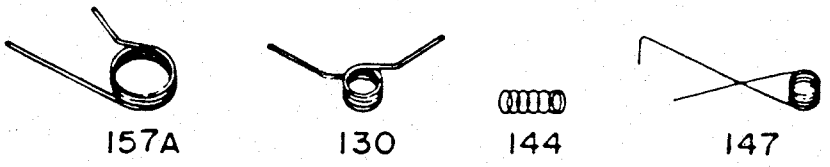
■ SPRING LOCATION
< DECK 1, 2 >



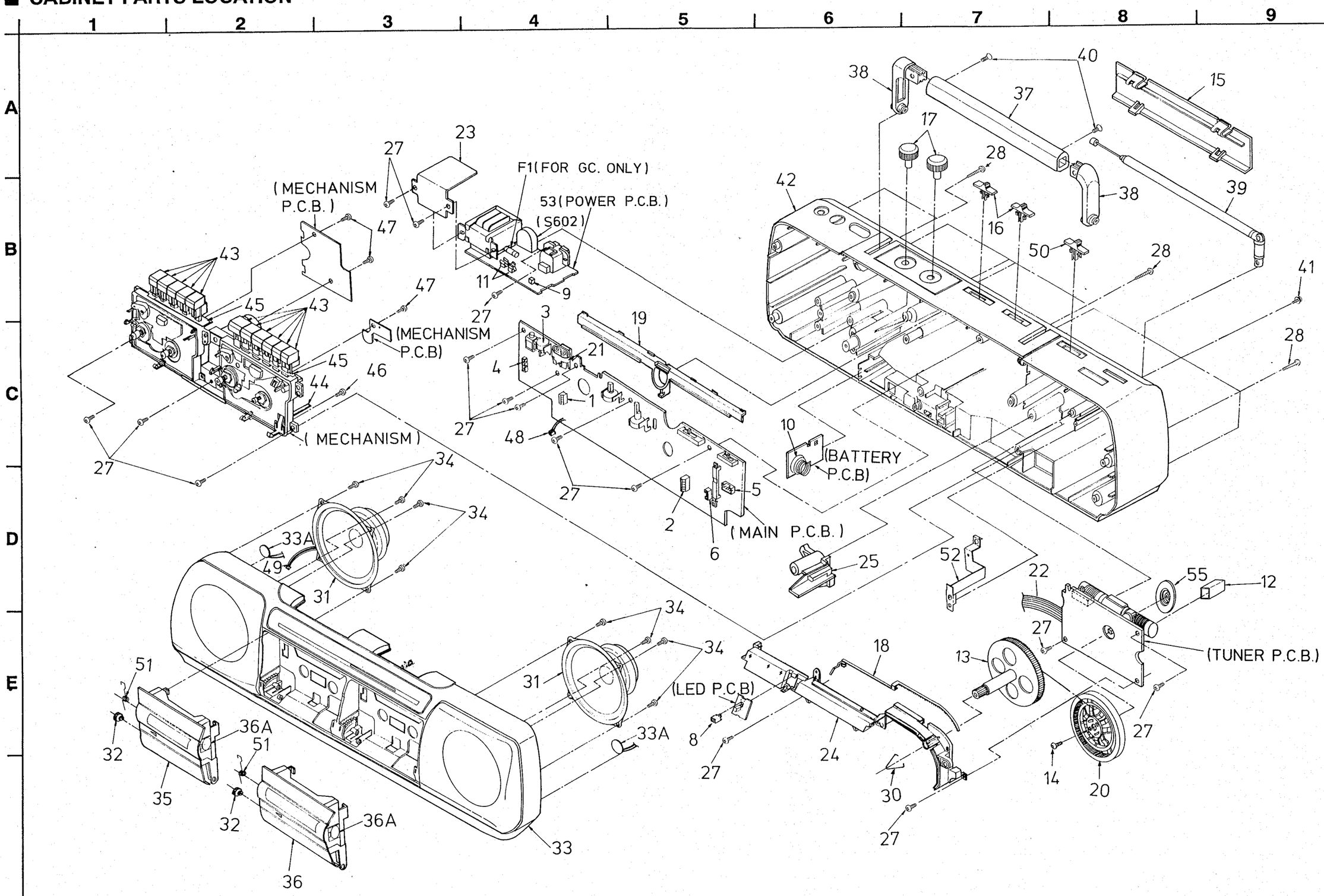
■ SPRING ILLUSTRATION

The illustration shows the actual size of the springs so it be use to check their shapes.
(The illustration shows the springs separated from the mechanism).





■ CABINET PARTS LOCATION



■ REPLACEMENT PARTS LIST

Notes:* Important safety notice:
Component identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
* Bracketed indications in Remarks columns specify the area. (Refer to the first page for area).
Parts without these indications can be used for all areas.
* [M] Indicates parts that are supplied by MESA.

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	RJS4T5ZA	SOCKET	
2	RJS6T5ZA	SOCKET	
3	RJM164YA	C.MICROPHONE	[M]
4	RJP3G4YA	CONNECTOR (3P)	
5	RJP4G18ZA	CONNECTOR (4P)	
6	RJP5G18ZA	CONNECTOR (5P)	
8	RMP287ZA	LED HOLDER	
9	RJP2G4YA	POWER 2P SOCKET	
10	RMBX0002	SPRING TERMINAL	[M]
11	RJF28ZA	FUSE HOLDER	
12	RMC1028ZA	SHIELD CAN	
13	RDG5958ZA	VARICON GEAR	[M]
14	XYN26 + C6	VARICON SCREW	
15	RKK318ZC-0	BATTERY COVER	[M]
16	RBD563ZA-0	SELECTOR KNOB	[M]
17	RBN6SZA-0	TONE/SELECTOR KNOB	[M]
18	RGJX0003-W	POINTER	[M]
19	RGQ0040-K	COVER CHASSIS	[M]
20	RGXX0004-K	TUNING KNOB	[M]
21	RJF0003-K	LINE JACK COVER	[M]
22	RWJ0106200KQ	FLAT CABLE	[M]
23	RMC1246ZA	SHIELD PLATE	[M]
24	RMK0111-1	DIAL CHASSIS	[M]
25	RML0169	R/P LEVER	[M]
27	XTV3 + 12G	SCREW	
28	XTN3 + 20G	SCREW, CAB	
30	RUW214ZA	SPRING	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
31	EAS10P241NJ	SPEAKER	[M]
32	RDG5874Z	DAMPER GEAR	[M]
33	RFKGXFT510GK	FRONT CABINET ASS'Y	[M]
33A	RAT0004	TWEETER	[M]
34	XTV3 + 10G	SP. SCREW	
35	RFKLXFT510P1	CASSETTE LID ASS'Y (L)	[M]
36	RFKLXFT510P2	CASSETTE LID ASS'Y (R)	[M]
36A	RUS527YA	SPRING	
37	RKH0011-K1	HANDLE BAR	[M]
38	RKX402YB-0	HANDLE ARM	[M]
39	XEARR225DA-Y	TELESCOPIC ANTENNA	
40	XTC3+10CFN	SCREW, HANDLE	
41	XYN3+F10FY	SCREW	
42	RFKHXFT510GK	REAR CABINET ASS'Y	[M] (G)
42	RFKHXFT510GC	REAR CABINET ASS'Y	[M] (GC)
43	RGU0366A-S	MECHANISM BUTTON	[M]
44	RMC0076	R/P PLATE SPRING	[M]
45	RMX0045	REGULATION PLATE	[M]
46	XTN2+4F	SCREW	
47	XTN2+6G	SCREW	
48	REX0284	POWER WIRE CONNECTOR	[M]
49	REX0183-1	SPEAKER LEAD	
50	RBD564ZA-0	KNOB, BAND	[M]
51	RMB0115	SPRING	[M]
52	RJR0055	TERMINAL	[M]
53	RJB0544C	P.C.B.	[M] (G)
54	RJB0544D	P.C.B.	[M] (GC)
55	RBT330ZB-0	KNOB, FINE TUNING	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)	
IC 1	AN7205	I.C, FM FRONT END	
IC 2	BA4236L	I.C, FM/AM IF AMP	
IC 3	RVIBA1332L	I.C, FM MPX	
IC301	BA3310N	I.C, PRE AMP	
IC302	LA4108R	I.C, POWER AMP	
		TRANSISTOR(S)	
Q 1	2SC829BTA	TRANSISTOR	
Q101	2SC1684STA	TRANSISTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
Q102	2SC1684RTA	TRANSISTOR	
Q103	2SC1684RTA	TRANSISTOR	
Q201	2SC1684STA	TRANSISTOR	
Q202	2SC1684RTA	TRANSISTOR	
Q203	2SC1684RTA	TRANSISTOR	
Q301	2SC1684RTA	TRANSISTOR	
Q302	2SC1684RTA	TRANSISTOR	
Q303	2SA564RTA	TRANSISTOR	
Q304	2SC1684RTA	TRANSISTOR	
Q308	2SC2001K1TA	TRANSISTOR	
Q311	2SA564RTA	TRANSISTOR	
Q312	2SC1684STA	TRANSISTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
Q401	2SK301QTA	TRANSISTOR	[M]
Q402	2SC1684RTA	TRANSISTOR	
		DIODE(S)	
D 1	RVD1SS133TA	DIODE	
D304	RVDMTZ6R8BTA	DIODE	
D307	RVD1SS133TA	DIODE	
D308	RVD1SS133TA	DIODE	
D312	RVD1SS133TA	DIODE	
D313	RVD1SS133TA	DIODE	
D317	RVDSLB55VR	LED	[M]
D601	RVD1SR35TA	DIODE	
D602	RVD1SR35TA	DIODE	
D603	RVD1SR35TA	DIODE	(GC)
D604	RVD1SR35TA	DIODE	(GC)
		VARIABLE RESISTOR(S)	
VR1	RVNCA14B1T-A	V.R, FM VCO	[M]
VR101	EWCVHAF15A54	V.R, TONE	
VR102	EWCUHAF10A54	V.R, VOLUME	
VR401	EVNDXAA00B14	V.R, TAPE SPEED	
		VARIABLE CAPACITOR(S)	
VC1	RCV4RC2V2K-M	VARIABLE CAPACITOR	
CT2	ECRLA010A53R	TRIMMING CAPACITOR	
CT3	ECRLA010A53R	TRIMMING CAPACITOR	
CT4	ECRLA010A53R	TRIMMING CAPACITOR	
CT5	ECVMFTPC17	TRIMMING CAPACITOR	
		COIL(S) AND TRANSFORMER(S)	
L 4	RLD4Y53W	COIL	[M] (G)
L 4	RL04N233-0	COIL	[M] (GC)
L 5	RLF5W12A-0	ANTENNA COIL	[M]
L 6	RLQY30S4W	COIL	[M]
L 7	RLA3B44-M	COIL	
L 8	RL02B108-M	OSC COIL	
L 9	RL03B91-M	OSC COIL	
L10	RL03B95-M	COIL	
T 1	RLI4B153-M	FM IFT	
T 2	RLI2B153-M	AM IFT	
T 3	RLI4B153-M	FM IFT	
T301	RL09B17-T	TRANSFORMER	
T601 ⚠	RLT5K3X10A-X	POWER TRANSFORMER	[M] (G)
T601 ⚠	RLT5K3G22A-X	POWER TRANSFORMER	[M] (GC)

Ref. No.	Part No.	Part Name & Description	Remarks
		FILTER(S)	
CF1	RVF107WDZT	CERAMIC FILTER	
CF2	RVFSFZ455JL	CERAMIC FILTER	
		SWITCH(ES)	
S 1	RSS4H04XA-H	SW, BAND	[M]
S301	RSS3B45XA-H	SW, EDITING	[M]
S302	RSH2F18ZA-A	SW, R/P	
S303	RSS3D30ZA-H	SW, SELECTOR	[M]
S304	RSH1A006-U	SW, MOTOR (DECK 1)	[M]
S305	RSH1A006-U	SW, MOTOR (DECK 2)	[M]
S306 ⚠	RJJ1SE01-H	JACK W/SW, AC/DC	
S602	RSR3A01ZA-H	SW, VOLTAGE SELECTOR	
		JACK(S)	
J 1	RJF1099ZA	JACK, CD/LINE IN	
J 2	RJJD7S2YA-C	JACK, HEADPHONE	
J 3 ⚠	RJJ1SE01-H	JACK, AC IN (S306)	
		PACKING MATERIAL(S)	
P 1	RPH658ZA	MIRAMAT SHEET	[M]
P 2	RPK0227	GIFT BOX	[M]
P 3	RPN0323	POLYFORM	[M]
P 4	RPNX0001	SPACER	[M]
P 5	XZB10X25A04	POLYBAG	
		ACCESSORIES	
A 1	RQT1103-G	INSTRUCTION MANUAL	[M]
A 2 ⚠	RJA168-1A	POWER CORD	[M] (G)
A 2 ⚠	RJA0013-A	POWER CORD	[M] (GC)
A3 ⚠	RJP120ZDS-K	POWER SUPPLY ADAPTOR	
		FUSE	
F 1 ⚠	XBA2C10TB0	FUSE	(GC)
		COMPONENT COMBINATION	
Z 1	RXABPWB6AT	BPF	

■ RESISTORS & CAPACITORS

Notes: * Capacitance values are in microfarads (μF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
* Resistance values are in ohms, unless specified otherwise, 1K=1,000(OHM), 1M=1,000K (OHM)
* Bracketed indications in Ref. No. columns specify the area (Refer to the first page for area).
Parts without these indication can be used for all areas.

Ref. No.	Part No.	Values & Remarks	
	RESISTORS		
R1	ERDS2TJ330T	33	1/4W
R2	ERDS2TJ101T	100	1/4W
R3	ERDS2TJ4R7T	4.7	1/4W
R4	ERDS2TJ334T	330K	1/4W
R5	ERDS2TJ471T	470	1/4W
R6	ERDS2TJ221T	220	1/4W
R7	ERDS2TJ470T	47	1/4W
R8	ERDS2TJ332T	3.3K	1/4W
R9	ERDS2TJ153T	1.5K	1/4W
R10	ERDS2TJ472T	4.7K	1/4W
R11	ERDS2TJ472T	4.7K	1/4W
R12	ERDS2TJ821T	820	1/4W
R13	ERDS2TJ821T	820	1/4W
R14	ERDS2TJ822T	8.2K	1/4W
R15	ERDS2TJ102T	1K	1/4W
R16	ERDS2TJ680T	68	1/4W
R17	ERDS2TJ272T	2.7K	1/4W
R18	ERDS2TJ563T	56K	1/4W
R19	ERDS2TJ680T	68	1/4W
R20	ERDS2TJ222T	2.2K	1/4W
R101	ERDS2TJ335T	3.3M	1/4W
R102	ERDS2TJ470T	47	1/4W
R103	ERDS2TJ273T	27K	1/4W
R104	ERDS2TJ152T	1.5K	1/4W
R105	ERDS2TJ153T	15K	1/4W
R106	ERDS2TJ152T	1.5K	1/4W
R107	ERDS2TJ122T	1.2K	1/4W
R108	ERDS2TJ472T	4.7K	1/4W
R109	ERDS2TJ273T	27K	1/4W
R110	ERDS2TJ473T	47K	1/4W
R111	ERDS2TJ181T	180	1/4W
R113	ERDS2TJ272T	2.7K	1/4W
R114	ERDS2TJ104T	100K	1/4W
R116	ERDS2TJ391T	390	1/4W
R117	ERDS2TJ103T	10K	1/4W
R118	ERDS2TJ153T	15K	1/4W
R119	ERDS2TJ821T	820	1/4W
R120	ERDS2TJ183T	18K	1/4W
R121	ERDS2TJ392T	3.9K	1/4W
R122	ERDS2TJ392T	3.9K	1/4W
R123	ERDS2TJ2R2T	2.2	1/4W
R124	ERDS2TJ101T	100	1/4W
R125	ERDS2TJ682T	6.8K	1/4W
R126	ERDS2TJ223T	22K	1/4W
R201	ERDS2TJ335T	3.3M	1/4W
R202	ERDS2TJ470T	47	1/4W
R203	ERDS2TJ273T	27K	1/4W
R204	ERDS2TJ152T	1.5K	1/4W
R205	ERDS2TJ153T	15K	1/4W
R206	ERDS2TJ152T	1.5K	1/4W
R207	ERDS2TJ122T	1.2K	1/4W
R208	ERDS2TJ472T	4.7K	1/4W
R209	ERDS2TJ273T	27K	1/4W
R210	ERDS2TJ473T	47K	1/4W
R211	ERDS2TJ181T	180	1/4W
R213	ERDS2TJ272T	2.7K	1/4W
R214	ERDS2TJ104T	100K	1/4W
R216	ERDS2TJ391T	390	1/4W
R217	ERDS2TJ103T	10K	1/4W
R218	ERDS2TJ153T	15K	1/4W
R219	ERDS2TJ821T	820	1/4W
R220	ERDS2TJ183T	18K	1/4W
R221	ERDS2TJ392T	3.9K	1/4W
R222	ERDS2TJ392T	3.9K	1/4W
R223	ERDS2TJ2R2T	2.2	1/4W
R224	ERDS2TJ101T	100	1/4W
R225	ERDS2TJ682T	6.8K	1/4W
R226	ERDS2TJ223T	22K	1/4W
R301	ERDS2TJ332T	3.3K	1/4W
R302	ERDS2TJ334T	330K	1/4W
R303	ERDS2TJ102T	1K	1/4W
R304	ERDS2TJ6R8T	6.8	1/4W
R305	ERDS2TJ561T	560	1/4W
R306	ERDS2TJ332T	3.3K	1/4W
R307	ERDS2TJ104T	100K	1/4W
R308	ERDS2TJ562T	5.6K	1/4W
R309	ERDS2TJ101T	100	1/4W
R310	ERDS2TJ224T	220K	1/4W
R311	ERDS2TJ333T	33K	1/4W
R312	ERDS2TJ561T	560	1/4W
R313	ERDS2TJ6R8T	6.8	1/4W
R314	ERDS2TJ102T	1K	1/4W
R315	ERDS2TJ471T	470	1/4W
R316	ERDS2TJ472T	4.7K	1/4W
R323	ERDS2TJ680T	68	1/4W
R325	ERDS2TJ395T	3.9M	1/4W
R328	ERDS2TJ222T	2.2K	1/4W
R329	ERDS2TJ680T	68	1/4W
R330	ERDS2TJ681T	680	1/4W
R338	ERDS2TJ224T	220K	1/4W
R339	ERDS2TJ472T	4.7K	1/4W
R340	ERDS2TJ331T	330	1/4W
R341	ERDS2TJ5R6T	5.6	1/4W
R401	ERDS2TJ123T	12K	1/4W
R403	ERDS2TJ102T	1K	1/4W
R404	ERDS2TJ153T	15K	1/4W
R405	ERDS2TJ105T	1M	1/4W
R406	ERDS2TJ472T	4.7K	1/4W
R408	ERDS2TJ153T	15K	1/4W
	CAPACITORS		
C1	ECBT1H100JC5	10P	50V
C2	ECBT1H220JC5	22P	50V
C5	ECBT1H8R2KC5	8.2P	50V
C7	ECBT1H3R3KC5	3.3P	50V
C9	ECBT1H200JC5	20P	50V
C10	ECBT1H102KB5	0.001	50V
C11	ECBT1H102KB5	0.001	50V
C12	ECFR1C223MR	0.022	16V
C13	ECBT1H4R7KC5	4.7P	50V
C14	ECBT1H180JC5	18P	50V
C15	ECBT1H470J5	47P	50V
C16(G)	ECBT1H150JC5	15P	50V
C16(GC)	ECCR1H180KS5	18P	50V
C17	ECBT1H102KB5	0.001	50V
C18	ECBT1H120JC5	12P	50V
C21	ECBT1C103MS5	0.01	16V
C19	ECBT1H120JC5	12P	50V
C20	ECBT1H2R2KC5	2.2P	50V
C22	ECQP2A361JZT	360P	100V
C23	ECQP1H152JZ3	1500P	50V
C24	ECQP1472JZT	4700P	100V
C25	ECQP2A151JZT	150P	100V
C26	ECBT1H102KB5	0.001	50V
C27	ECFR1C223MR	0.022	16V
C28	ECEA1HU2R2B	2.2	50V
C29	ECFR1C223MR	0.022	16V
C30	ECFR1C223MR	0.022	16V
C31	ECBT1H331KB5	330P	50V
C32	ECFR1C223MR	0.022	16V
C33	ECEA0JU101B	100	6.3V
C34	ECBT1C103MS5	0.01	16V
C35	ECFR1C223MR	0.022	16V
C36	ECBT1C103MS5	0.01	16V

Ref. No.	Part No.	Values & Remarks	
C37	ECEA1HU010B	1	50V
C38	ECEA1CU100B	10	16V
C39	ECEA0JU101B	100	6.3V
C40	ECBT1C103MS5	0.01	16V
C41	ECQP1H102JZ3	0.001	50V
C42	ECEA1HUR47B	0.47	50V
C43	ECEA1HUR47B	0.47	50V
C44	ECEA1HU2R2B	2.2	50V
C46	ECBT1H200JC5	20P	50V
C47	ECBT1H6R8KC5	6.8P	50V
C101	ECBT1H101KB5	100P	50V
C102	ECEA1HU010B	1	50V
C103	ECBT1H471KB5	470P	50V
C104	ECFR1C104JR	0.1	16V
C105	ECBT1H102KB5	0.001	50V
C106	ECEA1HU010B	1	50V
C107	ECEA1HU010B	1	50V
C108	ECBT1H102KB5	0.001	50V
C109	ECBT1H330J5	33P	50V
C110	ECEA0JU101B	100	6.3V
C111	ECEA1HU010B	1	50V
C112	ECBT1C103MS5	0.01	16V
C114	ECEA1HU0R1B	0.1	50V
C116	ECBT1H102KB5	0.001	50V
C117	ECEA0JU101B	100	6.3V
C118	ECBT1C103NS5	0.01	16V
C119	ECEA1AU470B	47	10V
C120	ECFR1C473MR	0.047	16V

Ref. No.	Part No.	Values & Remarks	
C121	ECEA1AU102B	1000	10V
C122	ECFR1C683MR	0.068	16V
C125	ECFR1C333MR	0.033	16V
C126	ECFR1C683MR	0.068	16V
C201	ECBT1H101KB5	100P	50V
C202	ECEA1HU010B	1	50V
C203	ECBT1H471KB5	470P	50V
C204	ECFR1C104JR	0.1	16V
C205	ECBT1H102KB5	0.001	50V
C206	ECEA1HU010B	1	50V
C207	ECEA1HU010B	1	50V
C208	ECBT1H102KB5	0.001	50V
C209	ECBT1H330J5	33P	50V
C210	ECEA0JU101B	100	6.3V
C211	ECEA1HU010B	1	50V
C212	ECBT1C103MS5	0.01	16V
C214	ECEA1HU0R1B	0.1	50V
C216	ECBT1H102KB5	0.001	50V
C217	ECEA0JU101B	100	6.3V
C218	ECBT1C103MS5	0.01	16V
C219	ECEA1AU470B	47	10V
C220	ECFR1C473MR	0.047	16V
C221	ECEA1AU102B	1000	10V
C222	ECFR1C683MR	0.068	16V
C225	ECFR1C333MR	0.033	16V
C226	ECFR1C683MR	0.068	16V
C301	ECBT1H101KB5	100	50V
C302	ECEA0JU221B	220	6.3V

Ref. No.	Part No.	Values & Remarks	
C303	ECFR1C223MR	0.022	16V
C304	ECBT1H102KB5	0.001	50V
C305	ECFR1C104MR	0.1	16V
C306	ECEA1HU010B	1	50V
C307	ECEA1CU100B	10	16V
C308	ECKR1H181KB5	180P	50V
C310	ECQP1272JZ	0.0027	100V
C311	ECEA0JU221B	220	6.3V
C312	ECFR1C223MR	0.022	16V
C313	ECBT1C103MS5	0.01	16V
C322	ECEA1HU2R2B	2.2	50V
C323	ECEA1CU100B	10	16V
C324	ECEA1AU221B	220	10V
C326	ECBT1C103NS5	0.01	16V
C327	ECEA1AU221B	220	10V
C332	ECEA1CU222E	2200	16V
C334	ECEA0JU471B	470	6.3V
C335	ECKR1H103MD5	0.01	50V
C336	ECEA1CU221B	220	16V
C337	ECEA1CU100B	10	16V
C401	ECEA1CU330B	33	16V
C402	ECEA1CU101B	100	16V
C403	ECEA1CU101	100	16V
C601	ECKR1H103ZF5	0.01	50V
C602	ECKR1H103ZF5	0.01	50V
C603	ECKR1H103ZF5	0.01	50V
C604	ECKR1H103ZF5	0.01	50V

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